

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/KR 2003/001626	International filing date (day/month/year) 12 August 2003 (12.08.2003)	Priority Date (day/month/year) 14 August 2002 (14.08.2002)
International Patent Classification (IPC) or national classification and IPC IPC ⁷ : A61K 7/48		
Applicant SK CHEMICALS CO. LTD.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examination Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I. <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II. <input type="checkbox"/> Priority</p> <p>III. <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV. <input type="checkbox"/> Lack of unity of invention</p> <p>V. <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI. <input type="checkbox"/> Certain documents cited</p> <p>VII. <input type="checkbox"/> Certain defects in the international application</p> <p>VIII. <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 10.03.2004	Date of completion of this report 6 December 2004 (06.12.2004)
Name and mailing address of the IPEA/AT Austrian Patent Office Dresdner Straße 87 A-1200 Vienna Facsimile No. 1/53424/200	Authorized officer BAUMSCHABL F. Telephone No. 1/53424/459

Form PCT/IPEA/409 (cover sheet) (July 1998)

Express Mail No. EV195875279US

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed☐ the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____.

☐ the claims:

pages _____, as originally filed

pages _____, as amended (together with any statement) under Article 19

pages _____, filed with the demand

pages _____, filed with the letter of _____.

☐ the drawings:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____.

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is:☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages _____.☐ the claims, Nos. _____.☐ the drawings, sheets/fig _____.5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as „originally filed“ and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PC 2003/001626**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement	Novelty (N)	Claims 2-7	YES
		Claims 1	NO
Inventive step (IS)		Claims 3-6	YES
		Claims 1,2,7	NO
Industrial applicability (IA)		Claims 1-7	YES
		Claims ---	NO

Citations and explanations (Rule 70.7)

Although we sent two reminders we still have not received all English translations of the documents cited in the search report of the Korean Intellectual Property Office. The international preliminary examination report is therefore based only on the available documents.

The English translation of claim 1 of KR 99-79378 A submitted to the Austrian Patent Office describes a cosmetic composition for prevention and treatment of pimples comprising natural substances selected from the group consisting of *Arctium lappa*, *Glycyrrhiza glabra* and *Angelica dahurica*. None of the extracts of *Cavalia gladiata*, *Biota orientalis* and *Coptis chinensis* of the subject matter of claim 1 of the present application are mentioned in the translation.

The second document cited in the search report (CN 1332002 A) can only be evaluated on the basis of abstracts :
CN 1332002 A (ZHANG J.), 2002-01-23 (abstract) World Patents Index [online] [retrieved on 2004-12-02]. Retrieved from EPO WPI database. DW: 200237, AN: 2002-330592 [37].
and

CN 1332002 A (ZHANG J.), 2002-01-23 (abstract) [online] [retrieved on 2004-12-02]. Retrieved from EPO EPODOC database.

The abstracts relate to a medicinal capsule useful in the treatment of acne comprising artificial bezoar, pearl, *Radix Scutellariae*, notoginseng, *Rhizoma Coptidis*, rhbarb, cimetidine, zinc gluconate and vitamin B₆. *Cavalia gladiata*, *Biota orientalis* and *Coptis chinensis* are not mentioned in the abstracts.

The third document cited in the search report (ZENG, ZUPIN et al., "Studies on the quality of Xiaocuojiefu", *Zhongcaoyao*, China, 1996, Vol.27, No. 9, pp.529-530) can only be evaluated on the basis of the abstract of Chemical Abstracts (AN: 125: 308787). The abstract relates to a traditional Chinese preparation (Xiacuojiefu) used in treatment of

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Box V (page 1)

acne. Main components were Chrysanthemum indicum, Coptis chinensis and sophora flavescens.

Therefore the subject matter of claim 1 of the present application is not to be seen new. A skilled person would use such extracts for topical formulations (like emulsion, cosmetic liquid, ointment and so on) in an amount of from 0.001 to 20 wt%. Therefore the subject matter of claims 1,2 and 7 are not considered to involve an inventive step.

The forth document cited in the search report (LEE, HYEONG-KYU et al., "Compounds from Biota orientalis leaves inhibit expression of adhesion molecules induced by TNF-alpha on inflammatory cells", Recent Advances in Natural Products Research, Proceedings of the International Symposium on Recent Advances in Natural Products Research 3rd, Republic of Korea, Nov, 1999, pp. 54 – 62) can only evaluated on the basis of the abstract of Chemical Abstracts (AN: 133: 329268). The study of the article suggests that Biota (orientalis) leaves are useful for the treatment of acute and chronic inflammation including bronchitis.

The last document (LEE, GYEONG-IM et al.), was also evaluated on the basis of the abstract of Chemical Abstracts (AN: 122: 151064). Different extracts (e.g. Coptis chinensis) were tested for their inhibitory effects in specific rat macrophages.

The subject matter of claims 2 to 7 are considered to be new. Claims 3 to 6 are considered to be inventive. Industrial applicability is given.